Cancer Data Pages: Cancer Incidence

VERMONT
DEPARTMENT OF HEALTH

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Introduction

Cancer is a group of more than 100 different diseases that often develop gradually as the result of a complex mix of lifestyle, environment, and genetic factors. People are at higher risk for certain cancers due to factors related to personal behaviors such as: tobacco use, alcohol use, diet, physical inactivity, and overexposure to sunlight. Vaccination with the HPV vaccine prior to exposure to the virus can decrease the risk of certain cancers. Cancer becomes more survivable when found and treated early, which can be accomplished through the use of available cancer screening tests including those for lung, breast, cervical, and colorectal cancers.

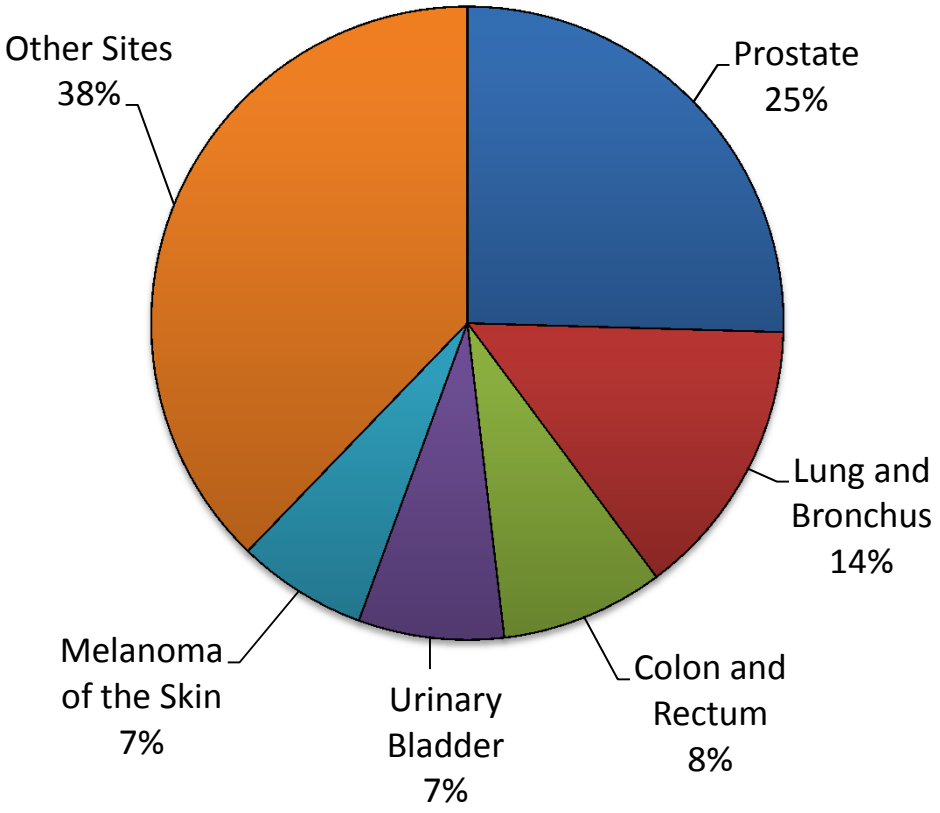
The purpose of this report is to present cancer incidence and staging data from the Vermont Cancer Registry (VCR).

Note: *Throughout this report, data comparisons presented as "higher," "lower," "larger," "smaller," "better," "worse," or as "significantly different" are all considered statistically significant differences.*

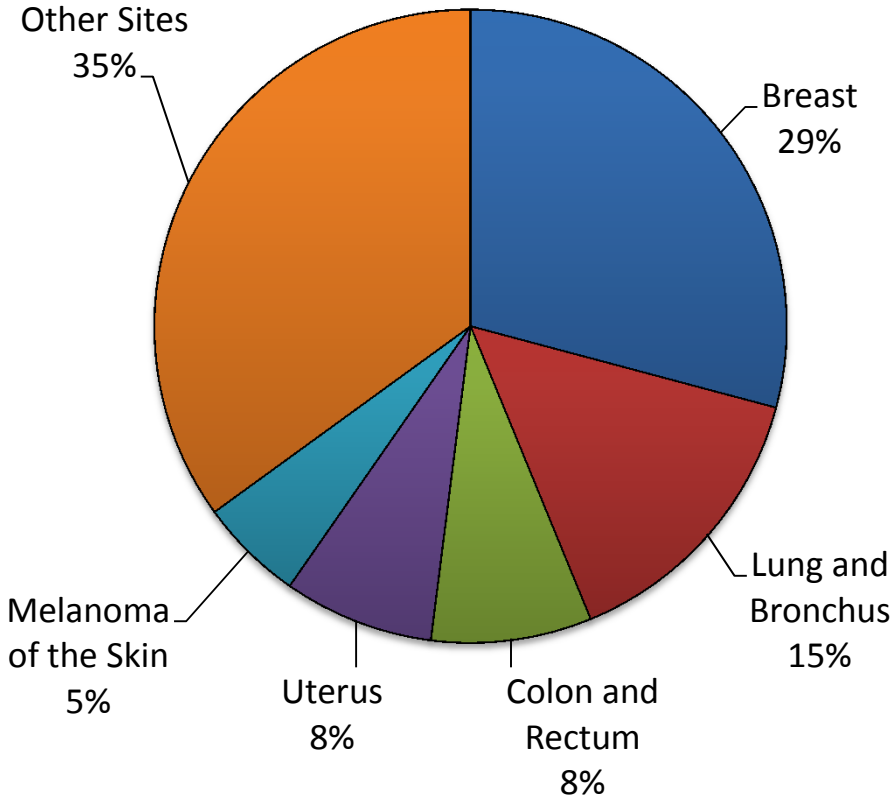
Confidence intervals were used for statistical comparisons between groups. A confidence interval represents the range in which a parameter estimate would fall which is calculated based on the observed data. For this analysis, we used a 95% confidence interval, meaning that we are 95% confident that the true value of the parameter being examined falls within the specified confidence interval. Statistical significance is assessed by comparing the confidence intervals of different groups. If the confidence intervals from two groups, do not overlap we consider the estimates to be significantly different from one another.

Cancer Incidence by Sex

Leading Cancer Sites, Vermont Males, 2008-2012



Leading Cancer Sites, Vermont Females, 2008-2012



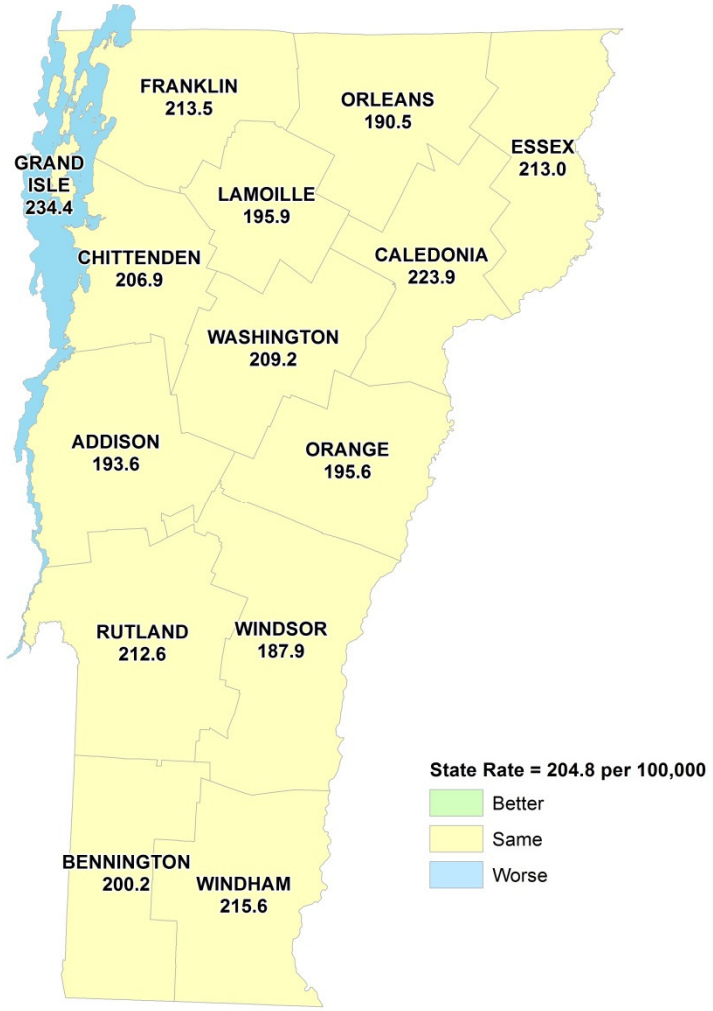
Obesity Associated Cancers

Excess weight has been identified as a risk factor for cancers of the breast (postmenopausal), colon and rectum, uterus, esophagus, kidney, pancreas, thyroid, and gallbladder. Excess weight may also increase the risk for cancers of the ovary, cervix, liver, non-Hodgkin lymphoma, myeloma, and prostate (advanced stage).

Nationally, the combined incidence rate of these obesity associated cancers was 203.4 per 100,000 persons (2008-2012). This rate was similar to the Vermont obesity associated cancer rate of 204.8 per 100,000 (2008-2012).

All Vermont counties had similar obesity associated cancer rates compared to the state rate (2008-2012).

Obesity Associated Cancers
Incidence Rate by County (2008-2012)



Note: All rates are age adjusted to the 2000 U.S. standard population.

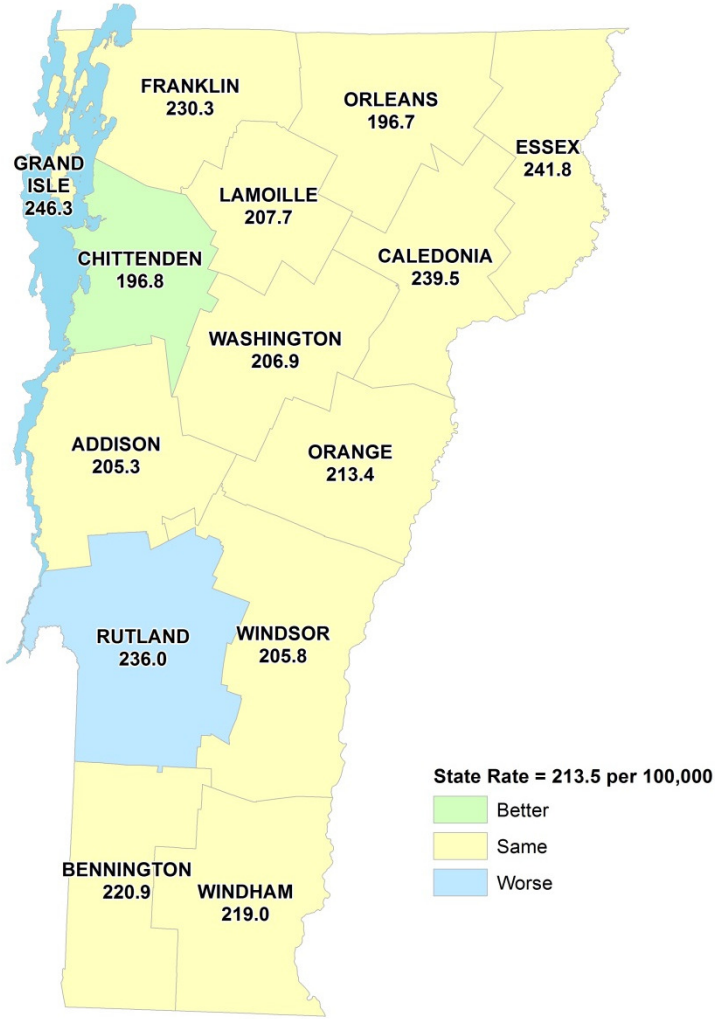
Tobacco Associated Cancers

Tobacco use increases the risk for many types of cancer, particularly lung cancer. Tobacco also increases the risk for cancers of the mouth, lips, nose and sinuses, larynx (voice box), pharynx (throat), esophagus, stomach, colon and rectum, pancreas, cervix, uterus, ovary, bladder, kidney, and acute myeloid leukemia.

In Vermont the combined rate of the tobacco associated cancers was 213.5 per 100,000 (2008-2012). This rate was similar to the national rate of 212.2 (2008-2012).

Most Vermont counties had tobacco associated cancer rates similar to the state rate (2008-2012). There are two exceptions: Chittenden County had a lower rate of tobacco associated cancers, while Rutland County had a higher rate of tobacco associated cancers (2008-2012).

Tobacco Associated Cancers
Incidence Rate by County (2008-2012)



Note: All rates are age adjusted to the 2000 U.S. standard population.

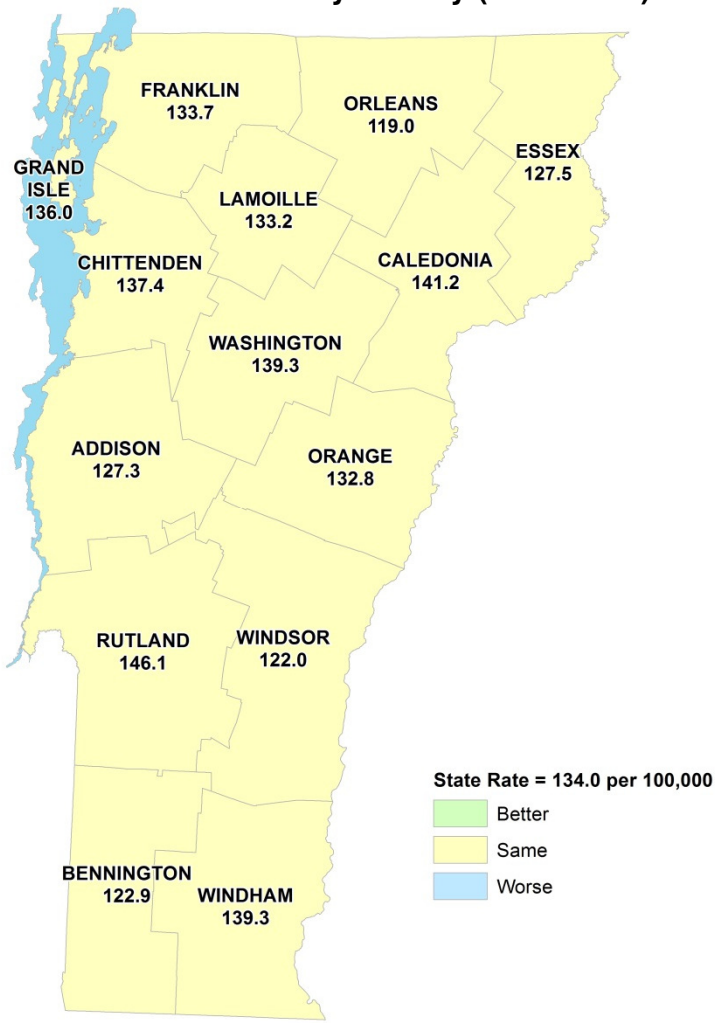
Alcohol Associated Cancers

Consumption of alcohol increases the risk of head and neck cancers, esophageal cancer, liver cancer, breast cancer, and colorectal cancer.

In Vermont the combined incidence rate of alcohol associated cancers was 134.0 per 100,000 (2008-2012). This rate was lower than the national rate of 154.4 (2008-2012).

All Vermont counties had similar alcohol associated cancer rates compared to the state rate (2008-2012).

Alcohol Associated Cancers
Incidence Rate by County (2008-2012)



Note: All rates are age adjusted to the 2000 U.S. standard population.

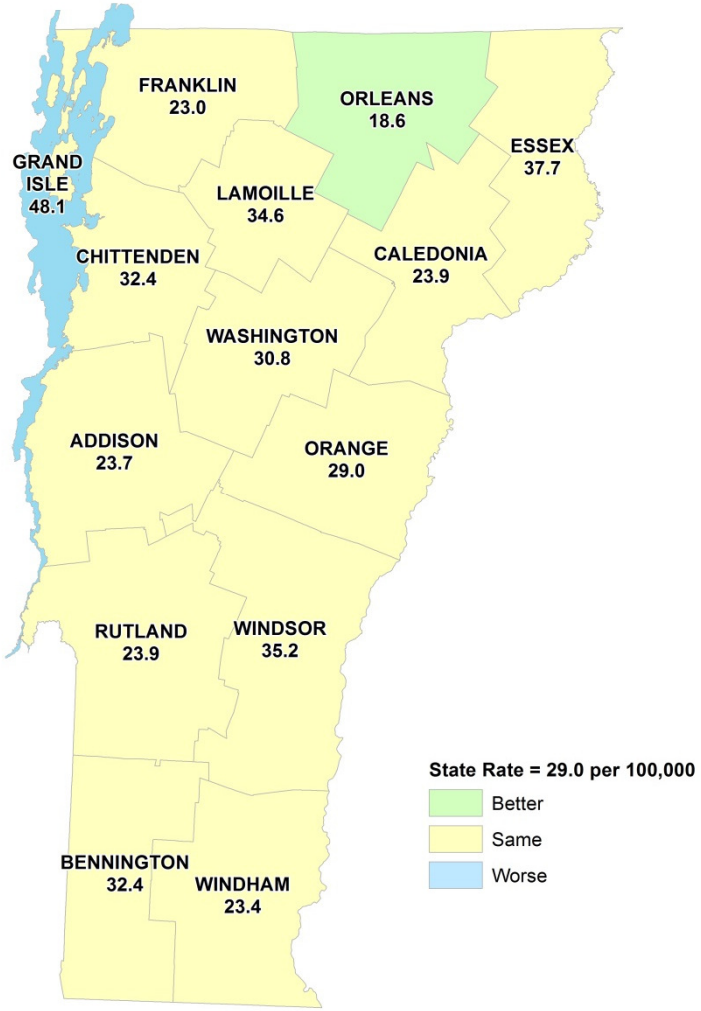
Melanoma, UV Exposure Associated Cancer

Although risk factors such as fair-skin or family history of melanoma contribute to risk for developing melanoma, most skin cancers are strongly associated with ultraviolet radiation (UV) exposure. As much as 90 percent of melanomas are estimated to be caused by UV exposure, the most preventable risk factor. Melanoma is the most dangerous form of skin cancer because of its likelihood of spreading if not diagnosed at an early stage.

In Vermont the rate of invasive melanoma was 29.0 per 100,000 persons (2008-2012). This rate was higher than the national rate of 19.9 (2008-2012).

Most Vermont counties had invasive melanoma incidence rates similar to the state rate (2008-2012). The exception was Orleans County which had a lower melanoma rate (2008-2012).

Melanoma, UV Exposure Associated Cancer, Incidence Rate by County (2008-2012)



Note: All rates are age adjusted to the 2000 U.S. standard population.

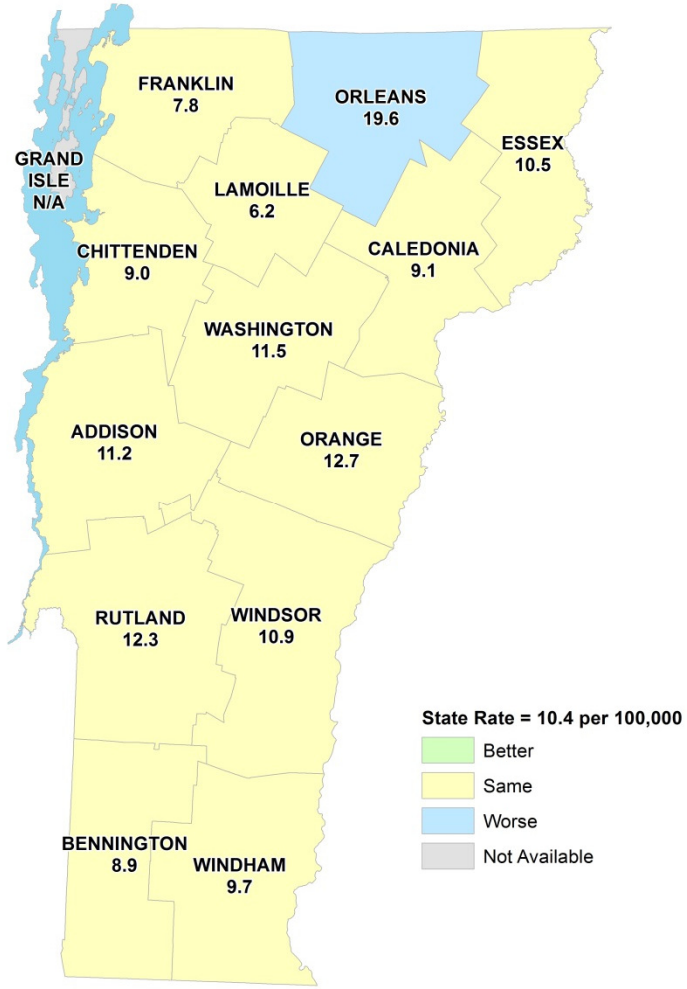
HPV Associated Cancers

Infection with the HPV virus is associated with cervical, vulvar, vaginal, penile, anal, and mouth and throat cancers.

In Vermont the combined incidence rate of HPV associated cancers was 10.4 per 100,000 (2008-2012). This rate was similar to the national rate of 11.3 (2008-2012).

Most Vermont counties had HPV associated cancer incidence rates similar to the state rate (2008-2012). The exception was Orleans County which had higher rate of HPV associated cancers (2008-2012).

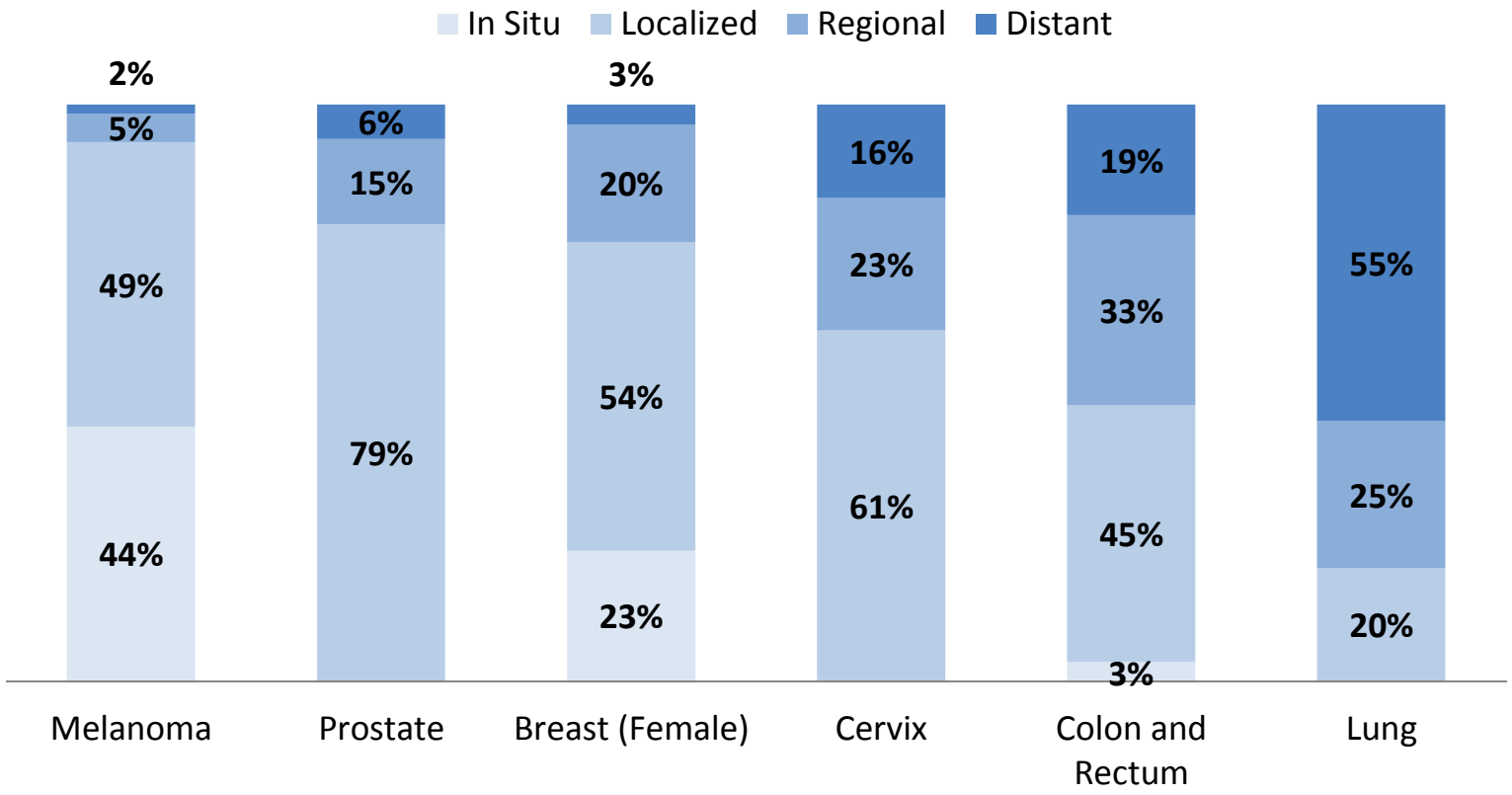
HPV Associated Cancers
Incidence Rate by County (2008-2012)



Note: All rates are age adjusted to the 2000 U.S. standard population.

Cancers by Stage at Diagnosis

Cancer Stage at Diagnosis
% of total cases of cancer, by type, according to stage at diagnosis, Vermont, 2008-2012



Note: Cervical cancers diagnosed as in situ are not reported to the Cancer Registry and are therefore not included in this chart.

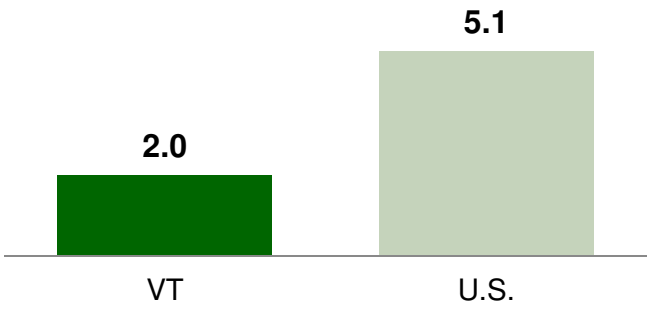
Late Stage Diagnosis – Cervical Cancer

Cancer becomes more survivable when found and treated early. Screening tests for certain cancers typically find tumors at an earlier stage than when symptoms appear. The result of more widespread use of screening is generally lower advanced stage incidence rates.

In Vermont the incidence rate of late stage cervical cancer, among women 20 and older, was 2.0 per 100,000 women (2008-2012). This rate was lower than the national late stage cervical cancer rate of 5.1 (2008-2012).

Due to the low number of cases of late stage cervical cancer in Vermont, comparisons cannot be made between counties.

Advanced Stage Cervical Cancer Incidence Rate (Ages 20+, 2008-2012)



Note: All rates are age adjusted to the 2000 U.S. standard population.

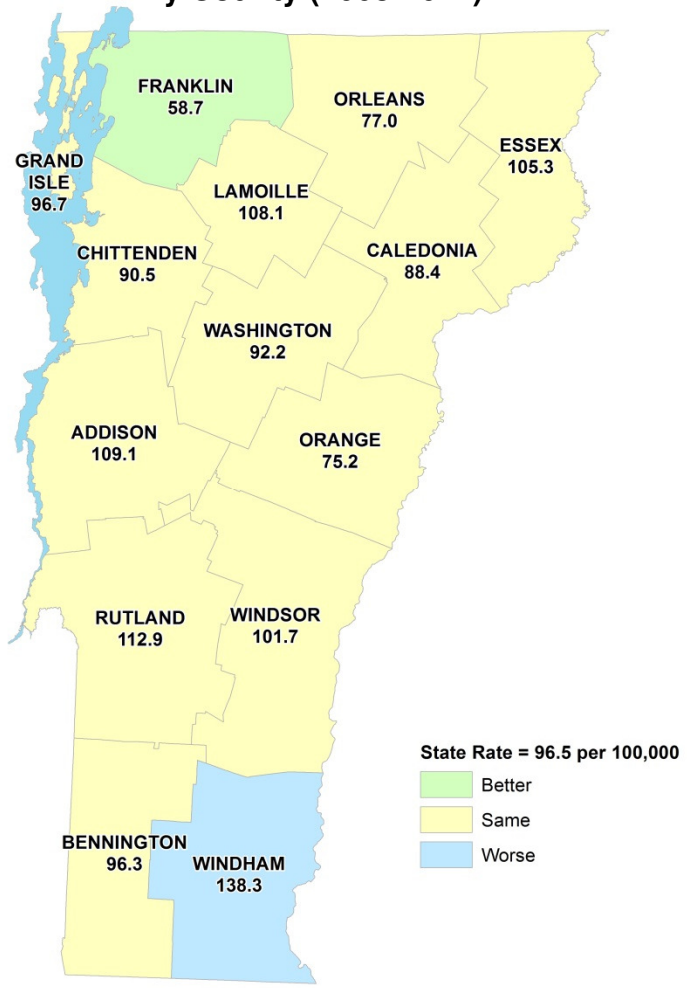
Late Stage Diagnosis – Breast Cancer

Cancer becomes more survivable when found and treated early. Screening tests for certain cancers typically find tumors at an earlier stage than when symptoms appear. The result of more widespread use of screening is generally lower advanced stage incidence rates.

In Vermont the incidence rate of late stage breast cancer (in women 50 and older) was 96.5 per 100,000 women (2008-2012). This rate was lower than the national late stage breast cancer rate of 107.4 (2008-2012).

Most Vermont counties had late stage breast cancer rates similar to the state rate (2008-2012). The exceptions were: Franklin County, which had a lower rate of late stage breast cancer, and Windham County, which had a higher rate of late stage breast cancer (2008-2012).

Late Stage Breast Cancer Diagnosis
(Female, Age 50+)
By County (2008-2012)



Note: All rates are age adjusted to the 2000 U.S. standard population.

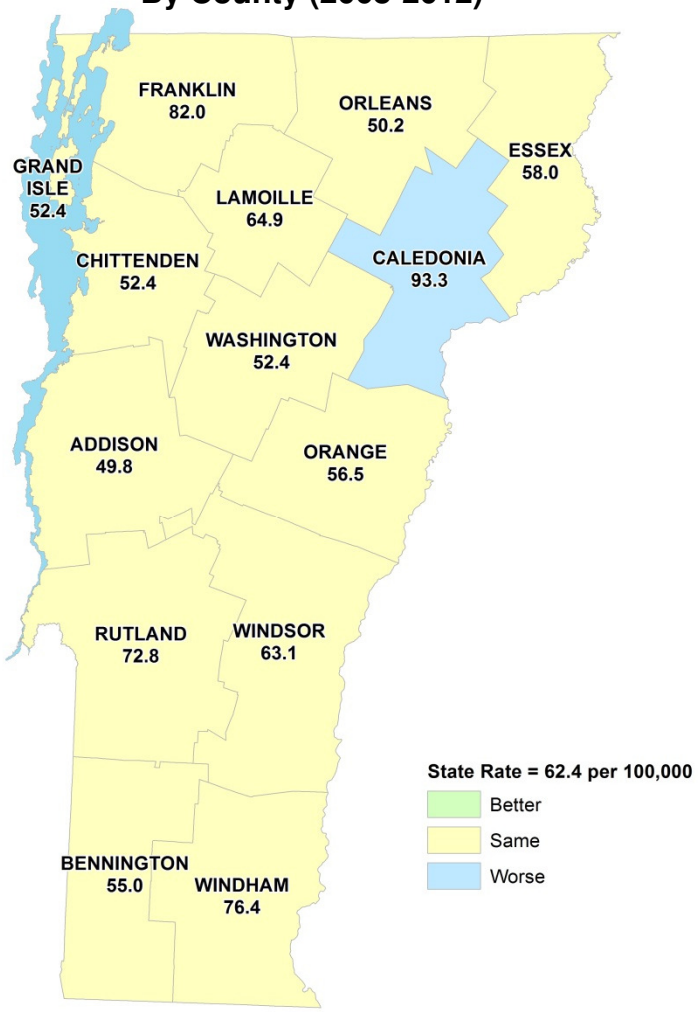
Late Stage Diagnosis – Colorectal Cancer

Cancer becomes more survivable when found and treated early. Screening tests for certain cancers typically find tumors at an earlier stage than when symptoms appear. The result of more widespread use of screening is generally lower advanced stage incidence rates.

In Vermont the incidence rate of late stage colorectal cancer, among those 50 and older, was 62.4 per 100,000 persons (2008-2012). This rate was similar to the national rate of 69.6 (2008-2012).

Most Vermont counties had late stage colorectal cancer rates similar to the state rate (2008-2012). The exception was Caledonia County which had a higher rate (2008-2012).

Late Stage Colorectal Cancer Diagnosis (Age 50+) By County (2008-2012)



Note: All rates are age adjusted to the 2000 U.S. standard population.

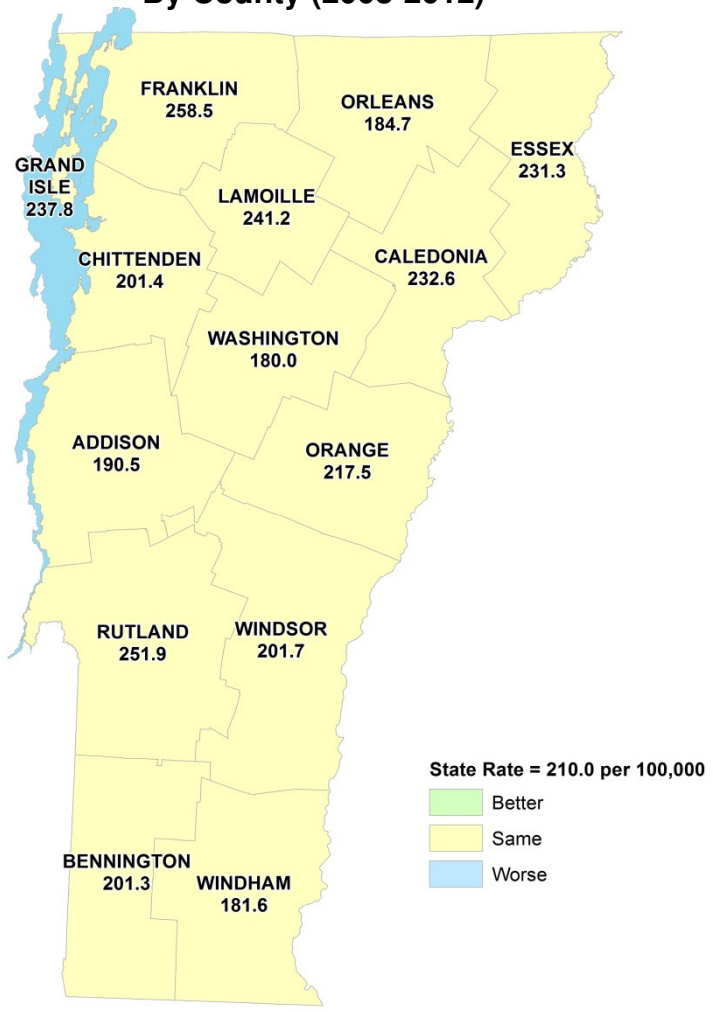
Late Stage Diagnosis – Lung Cancer

Cancer becomes more survivable when found and treated early. Screening tests for certain cancers typically find tumors at an earlier stage than when symptoms appear. The result of more widespread use of screening is generally lower advanced stage incidence rates.

In Vermont the incidence rate of late stage lung cancer, among those 55 and older, was 210.0 per 100,000 persons (2008-2012). This rate was higher than the national rate of 188.2 (2008-2012).

All Vermont counties had similar late stage lung cancer rates compared to the state rate (2008-2012).

Late Stage Lung Cancer Diagnosis (Age 55+) By County (2008-2012)



Note: All rates are age adjusted to the 2000 U.S. standard population.

Data Notes

Vermont Cancer Registry (VCR): The Vermont Cancer Registry (VCR) is Vermont's statewide population-based cancer surveillance system. The registry collects information about all cancers (except non-melanoma skin cancers and carcinoma in situ of the cervix) and all benign brain tumors diagnosed in Vermont. All statistics exclude in situ carcinomas except urinary bladder, unless indicated otherwise. Vermont cases include Vermont residents only. The U.S. incidence rates are based on the NPCR and SEER Incidence 1999-2012 database. A reporting delay by Department of Veterans Affairs (VA) has resulted in incomplete reporting of VA hospital cases in 2011 and 2012.

Data Not Available: Indicates that the number of cases in this group is too small for estimates to be reliable.

Age Adjustment: Rates are age adjusted to the 2000 U.S. standard population.

Confidence Intervals used for statistical comparisons: A confidence interval represents the range in which a parameter estimate could fall which is calculated based on the observed data. For this analysis, we used a 95% confidence interval, meaning that we are 95% confident that the true value of the parameter being examined falls within the specified confidence interval. Statistical significance is assessed by comparing the confidence intervals of different groups. If the confidence intervals from two groups, such as that for the state and a specific county, do not overlap we consider the estimates to be significantly different from one another.

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